

Sequence Listing

<110> Desnoyers,Luc
Eaton,Dan L.
Goddard,Audrey
Godowski,Paul J.
Gurney,Austin L.
Pan,James
Stewart,Timothy A.
Watanabe,Colin K.
Wood,William I.
Zhang,Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
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 20 25 30
 Gln Thr Gly Gly Leu Pro Pro Asp Cys Ser Lys Cys Cys His Gly
 35 40 45
 Asp Tyr Ser Phe Arg Gly Tyr Gln Gly Pro Pro Gly Pro Pro Gly
 50 55 60
 Pro Pro Gly Ile Pro Gly Asn His Gly Asn Asn Gly Asn Asn Gly
 65 70 75
 Ala Thr Gly His Glu Gly Ala Lys Gly Glu Lys Gly Asp Lys Gly
 80 85 90
 Asp Leu Gly Pro Arg Gly Glu Arg Gly Gln His Gly Pro Lys Gly
 95 100 105
 Glu Lys Gly Tyr Pro Gly Ile Pro Pro Glu Leu Gln Ile Ala Phe
 110 115 120
 Met Ala Ser Leu Ala Thr His Phe Ser Asn Gln Asn Ser Gly Ile
 125 130 135
 Ile Phe Ser Ser Val Glu Thr Asn Ile Gly Asn Phe Phe Asp Val
 140 145 150

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Thr	Phe	Ser	Met	Met	Lys	His	Glu	Asp	Val	Glu	Glu	Val	Tyr	Val
				170						175				180
Tyr	Leu	Met	His	Asn	Gly	Asn	Thr	Val	Phe	Ser	Met	Tyr	Ser	Tyr
				185						190				195
Glu	Met	Lys	Gly	Lys	Ser	Asp	Thr	Ser	Ser	Asn	His	Ala	Val	Leu
				200						205				210
Lys	Leu	Ala	Lys	Gly	Asp	Glu	Val	Trp	Leu	Arg	Met	Gly	Asn	Gly
				215						220				225
Ala	Leu	His	Gly	Asp	His	Gln	Arg	Phe	Ser	Thr	Phe	Ala	Gly	Phe
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gcaaaggtgg agaagcgttg gtgg 24

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<211> 440

<212> PRT

<213> Homo Sapien

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Leu	Asp	Gly	Phe	Arg	Ser	Asp	Tyr	Ile	Ser	Asp	Glu	Ala	Leu	Glu
				35					40					45
Ser	Leu	Pro	Gly	Phe	Lys	Glu	Ile	Val	Ser	Arg	Gly	Val	Lys	Val
				50					55					60
Asp	Tyr	Leu	Thr	Pro	Asp	Phe	Pro	Ser	Leu	Ser	Tyr	Pro	Asn	Tyr
				65					70					75
Tyr	Thr	Leu	Met	Thr	Gly	Arg	His	Cys	Glu	Val	His	Gln	Met	Ile
				80					85					90
Gly	Asn	Tyr	Met	Trp	Asp	Pro	Thr	Thr	Asn	Lys	Ser	Phe	Asp	Ile
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Gly	Val	Asn	Lys	Asp	Ser	Leu	Met	Pro	Leu	Trp	Trp	Asn	Gly	Ser

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Glu Pro Leu Trp	Val Thr Leu Thr Lys	Ala Lys Arg Lys Val Tyr			
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Pro Thr Tyr Cys	Leu Glu Tyr Lys Asn	Val Pro Thr Asp Ile Asn			
	155	160			165
Phe Ala Asn Ala	Val Ser Asp Ala Leu	Asp Ser Phe Lys Ser Gly			
	170	175			180
Arg Ala Asp Leu	Ala Ala Ile Tyr His	Glu Arg Ile Asp Val Glu			
	185	190			195
Gly His His Tyr	Gly Pro Ala Ser Pro	Gln Arg Lys Asp Ala Leu			
	200	205			210
Lys Ala Val Asp	Thr Val Leu Lys Tyr	Met Thr Lys Trp Ile Gln			
	215	220			225
Glu Arg Gly Leu	Gln Asp Arg Leu Asn	Val Ile Ile Phe Ser Asp			
	230	235			240
His Gly Met Thr	Asp Ile Phe Trp Met	Asp Lys Val Ile Glu Leu			
	245	250			255
Asn Lys Tyr Ile	Ser Leu Asn Asp Leu	Gln Gln Val Lys Asp Arg			
	260	265			270
Gly Pro Val Val	Ser Leu Trp Pro Ala	Pro Gly Lys His Ser Glu			
	275	280			285
Ile Tyr Asn Lys	Leu Ser Thr Val Glu	His Met Thr Val Tyr Glu			
	290	295			300
Lys Glu Ala Ile	Pro Ser Arg Phe Tyr	Tyr Lys Lys Gly Lys Phe			
	305	310			315
Val Ser Pro Leu	Thr Leu Val Ala Asp	Glu Gly Trp Phe Ile Thr			
	320	325			330
Glu Asn Arg Glu	Met Leu Pro Phe Trp	Met Asn Ser Thr Gly Arg			
	335	340			345
Arg Glu Gly Trp	Gln Arg Gly Trp His	Gly Tyr Asp Asn Glu Leu			
	350	355			360
Met Asp Met Arg	Gly Ile Phe Leu Ala	Phe Gly Pro Asp Phe Lys			
	365	370			375
Ser Asn Phe Arg	Ala Ala Pro Ile Arg	Ser Val Asp Val Tyr Asn			
	380	385			390
Val Met Cys Asn	Val Val Gly Ile Thr	Pro Leu Pro Asn Asn Gly			
	395	400			405

Ser	Trp	Ser	Arg	Val	Met	Cys	Met	Leu	Lys	Gly	Arg	Ala	Gly	Thr
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Ala	Pro	Pro	Val	Trp	Pro	Ser	His	Cys	Ala	Leu	Ala	Leu	Ile	Leu
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Leu	Phe	Leu	Leu	Ala										
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				20					25					30
His	Gly	Thr	Pro	His	Cys	Tyr	Ser	Ala	Glu	Glu	Leu	Pro	Leu	Gly
				35					40					45
Gln	Ala	Pro	Pro	His	Leu	Leu	Ala	Arg	Gly	Ala	Lys	Trp	Gly	Gln
				50					55					60
Ala	Leu	Pro	Val	Ala	Leu	Val	Ser	Ser	Leu	Glu	Ala	Ala	Ser	His
				65					70					75
Arg	Gly	Arg	His	Glu	Arg	Pro	Ser	Ala	Thr	Thr	Gln	Cys	Pro	Val
				80					85					90
Leu	Arg	Pro	Glu	Glu	Val	Leu	Glu	Ala	Asp	Thr	His	Gln	Arg	Ser
				95					100					105
Ile	Ser	Pro	Trp	Arg	Tyr	Arg	Val	Asp	Thr	Asp	Glu	Asp	Arg	Tyr
				110					115					120
Pro	Gln	Lys	Leu	Ala	Phe	Ala	Glu	Cys	Leu	Cys	Arg	Gly	Cys	Ile
				125					130					135
Asp	Ala	Arg	Thr	Gly	Arg	Glu	Thr	Ala	Ala	Leu	Asn	Ser	Val	Arg
				140					145					150
Leu	Leu	Gln	Ser	Leu	Leu	Val	Leu	Arg	Arg	Arg	Pro	Cys	Ser	Arg
				155					160					165
Asp	Gly	Ser	Gly	Leu	Pro	Thr	Pro	Gly	Ala	Phe	Ala	Phe	His	Thr
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Ser Val

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<210> 13
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<220>
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gggacgtgga tgaactcggg gtgg 24

<210> 14
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

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tatccacaga agctggcctt cgccgagtgc ctgtgcagag 40

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<212> PRT
<213> Homo Sapien

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Phe Gly Gly Cys Ser His Gly Ser Arg Cys Leu Arg Asp Ser Thr
35 40 45
His Cys Val Thr Thr Ala Thr Arg Val Leu Ser Asn Thr Glu Asp
50 55 60
Leu Pro Leu Val Thr Lys Met Cys His Ile Gly Cys Pro Asp Ile
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Pro Ser Leu Gly Leu Gly Pro Tyr Val Ser Ile Ala Cys Cys Gln
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Thr Ser Leu Cys Asn His Asp
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 <213> Homo Sapien

<400> 18
 Met Ser Arg Val Val Ser Leu Leu Leu Gly Ala Ala Leu Leu Cys
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 20 25 30
 Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe
 35 40 45
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala
 50 55 60
 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala
 65 70 75
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro
 80 85 90
 Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg
 95 100 105
 Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln
 110 115 120
 Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp
 125 130 135
 Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln
 140 145 150
 Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp
 155 160 165
 Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr

	170		175		180									
Glu	Pro	Glu	Ile	Asn	Pro	Thr	Ala	Pro	Val	Glu	Lys	Pro	Tyr	Leu
				185					190					195
Thr	Asn	Gln	Pro	Gly	Asp	Thr	His	Gln	Asn	Val	Val	Val	Thr	Glu
				200					205					210
Ala	Gly	Ile	Ile	Pro	Asn	Leu	Ile	Tyr	Val	Val	Ile	Pro	Thr	Ile
				215					220					225
Pro	Leu	Leu	Leu	Leu	Ile	Leu	Val	Ala	Phe	Gly	Thr	Cys	Cys	Phe
				230					235					240
Gln	Met	Leu	His	Lys	Ser	Lys	Gly	Arg	Thr	Lys	Thr	Ser	Pro	Asn
				245					250					255
Gln	Ser	Thr	Leu	Trp	Ile	Ser	Lys	Ser	Thr	Arg	Lys	Glu	Ser	Gly
				260					265					270

Met Glu Val

<210> 19
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 19
 caccaaccaa ctgccaatcc tggc 24

<210> 20
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 20
 accacattct gatgggtgtc tcctgg 26

<210> 21
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 21
 gggccctac ctttaccagt ggaatgatga caggtgtaac atgaagcac 49

<210> 22
 <211> 3824

<212> DNA

<213> Homo Sapien

<400> 22

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gcgtgaaggg cacagaccgc cttgtgaatg tctttctggg cattccattt 200
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 ggcgagacaa gagaataaaa gcaggctgcc tgagccagca gtgacaacc 3750
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 aataaatctt gctactgccc aaaa 3824

<210> 23

<211> 571

<212> PRT

<213> Homo Sapien

<400> 23

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				20					25					30
Val	Ala	Gln	Pro	Glu	Val	Asp	Thr	Thr	Leu	Gly	Arg	Val	Arg	Gly
				35					40					45
Arg	Gln	Val	Gly	Val	Lys	Gly	Thr	Asp	Arg	Leu	Val	Asn	Val	Phe

50					55					60				
Leu	Gly	Ile	Pro	Phe	Ala	Gln	Pro	Pro	Leu	Gly	Pro	Asp	Arg	Phe
				65					70					75
Ser	Ala	Pro	His	Pro	Ala	Gln	Pro	Trp	Glu	Gly	Val	Arg	Asp	Ala
				80					85					90
Ser	Thr	Ala	Pro	Pro	Met	Cys	Leu	Gln	Asp	Val	Glu	Ser	Met	Asn
				95					100					105
Ser	Ser	Arg	Phe	Val	Leu	Asn	Gly	Lys	Gln	Gln	Ile	Phe	Ser	Val
				110					115					120
Ser	Glu	Asp	Cys	Leu	Val	Leu	Asn	Val	Tyr	Ser	Pro	Ala	Glu	Val
				125					130					135
Pro	Ala	Gly	Ser	Gly	Arg	Pro	Val	Met	Val	Trp	Val	His	Gly	Gly
				140					145					150
Ala	Leu	Ile	Thr	Gly	Ala	Ala	Thr	Ser	Tyr	Asp	Gly	Ser	Ala	Leu
				155					160					165
Ala	Ala	Tyr	Gly	Asp	Val	Val	Val	Val	Thr	Val	Gln	Tyr	Arg	Leu
				170					175					180
Gly	Val	Leu	Gly	Phe	Phe	Ser	Thr	Gly	Asp	Glu	His	Ala	Pro	Gly
				185					190					195
Asn	Gln	Gly	Phe	Leu	Asp	Val	Val	Ala	Ala	Leu	Arg	Trp	Val	Gln
				200					205					210
Glu	Asn	Ile	Ala	Pro	Phe	Gly	Gly	Asp	Leu	Asn	Cys	Val	Thr	Val
				215					220					225
Phe	Gly	Gly	Ser	Ala	Gly	Gly	Ser	Ile	Ile	Ser	Gly	Leu	Val	Leu
				230					235					240
Ser	Pro	Val	Ala	Ala	Gly	Leu	Phe	His	Arg	Ala	Ile	Thr	Gln	Ser
				245					250					255
Gly	Val	Ile	Thr	Thr	Pro	Gly	Ile	Ile	Asp	Ser	His	Pro	Trp	Pro
				260					265					270
Leu	Ala	Gln	Lys	Ile	Ala	Asn	Thr	Leu	Ala	Cys	Ser	Ser	Ser	Ser
				275					280					285
Pro	Ala	Glu	Met	Val	Gln	Cys	Leu	Gln	Gln	Lys	Glu	Gly	Glu	Glu
				290					295					300
Leu	Val	Leu	Ser	Lys	Lys	Leu	Lys	Asn	Thr	Ile	Tyr	Pro	Leu	Thr
				305					310					315
Val	Asp	Gly	Thr	Val	Phe	Pro	Lys	Ser	Pro	Lys	Glu	Leu	Leu	Lys
				320					325					330
Glu	Lys	Pro	Phe	His	Ser	Val	Pro	Phe	Leu	Met	Gly	Val	Asn	Asn
				335					340					345

His	Glu	Phe	Ser	Trp	Leu	Ile	Pro	Arg	Gly	Trp	Gly	Leu	Leu	Asp	350	355	360
Thr	Met	Glu	Gln	Met	Ser	Arg	Glu	Asp	Met	Leu	Ala	Ile	Ser	Thr	365	370	375
Pro	Val	Leu	Thr	Ser	Leu	Asp	Val	Pro	Pro	Glu	Met	Met	Pro	Thr	380	385	390
Val	Ile	Asp	Glu	Tyr	Leu	Gly	Ser	Asn	Ser	Asp	Ala	Gln	Ala	Lys	395	400	405
Cys	Gln	Ala	Phe	Gln	Glu	Phe	Met	Gly	Asp	Val	Phe	Ile	Asn	Val	410	415	420
Pro	Thr	Val	Ser	Phe	Ser	Arg	Tyr	Leu	Arg	Asp	Ser	Gly	Ser	Pro	425	430	435
Val	Phe	Phe	Tyr	Glu	Phe	Gln	His	Arg	Pro	Ser	Ser	Phe	Ala	Lys	440	445	450
Ile	Lys	Pro	Ala	Trp	Val	Lys	Ala	Asp	His	Gly	Ala	Glu	Gly	Ala	455	460	465
Phe	Val	Phe	Gly	Gly	Pro	Phe	Leu	Met	Asp	Glu	Ser	Ser	Arg	Leu	470	475	480
Ala	Phe	Pro	Glu	Ala	Thr	Glu	Glu	Glu	Lys	Gln	Leu	Ser	Leu	Thr	485	490	495
Met	Met	Ala	Gln	Trp	Thr	His	Phe	Ala	Arg	Thr	Gly	Asp	Pro	Asn	500	505	510
Ser	Lys	Ala	Leu	Pro	Pro	Trp	Pro	Gln	Phe	Asn	Gln	Ala	Glu	Gln	515	520	525
Tyr	Leu	Glu	Ile	Asn	Pro	Val	Pro	Arg	Ala	Gly	Gln	Lys	Phe	Arg	530	535	540
Glu	Ala	Trp	Met	Gln	Phe	Trp	Ser	Glu	Thr	Leu	Pro	Ser	Lys	Ile	545	550	555
Gln	Gln	Trp	His	Gln	Lys	Gln	Lys	Asn	Arg	Lys	Ala	Gln	Glu	Asp	560	565	570

Leu

<210> 24

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 24

gcaaagctct gcctccttgg cc 22

<210> 25
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
gggtggactg tgctctaattg gacgc 25

<210> 26
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtggcactg gggtgatc 18

<210> 27
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
gatgcagttc tggtcagaga cgctccccag caagatacaa cagtg 45

<210> 28
<211> 1342
<212> DNA
<213> Homo Sapien

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cttctacaac taaaattcct caaacctaaa atcaacagct tttatgcctt 150
tgaagtgaag gatgcaaaaag gaagaactgt ttctctggaa aagtataaag 200
gcaaagtttc actagttgta aacgtggcca gtgactgcca actcacagac 250
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<210> 29
 <211> 209
 <212> PRT
 <213> Homo Sapien

<400> 29
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 20 25 30
 Thr Leu Phe Leu Leu Gln Leu Lys Phe Leu Lys Pro Lys Ile Asn
 35 40 45
 Ser Phe Tyr Ala Phe Glu Val Lys Asp Ala Lys Gly Arg Thr Val
 50 55 60
 Ser Leu Glu Lys Tyr Lys Gly Lys Val Ser Leu Val Val Asn Val
 65 70 75
 Ala Ser Asp Cys Gln Leu Thr Asp Arg Asn Tyr Leu Gly Leu Lys
 80 85 90

Glu	Leu	His	Lys	Glu	Phe	Gly	Pro	Ser	His	Phe	Ser	Val	Leu	Ala
				95					100					105
Phe	Pro	Cys	Asn	Gln	Phe	Gly	Glu	Ser	Glu	Pro	Arg	Pro	Ser	Lys
				110					115					120
Glu	Val	Glu	Ser	Phe	Ala	Arg	Lys	Asn	Tyr	Gly	Val	Thr	Phe	Pro
				125					130					135
Ile	Phe	His	Lys	Ile	Lys	Ile	Leu	Gly	Ser	Glu	Gly	Glu	Pro	Ala
				140					145					150
Phe	Arg	Phe	Leu	Val	Asp	Ser	Ser	Lys	Lys	Glu	Pro	Arg	Trp	Asn
				155					160					165
Phe	Trp	Lys	Tyr	Leu	Val	Asn	Pro	Glu	Gly	Gln	Val	Val	Lys	Phe
				170					175					180
Trp	Arg	Pro	Glu	Glu	Pro	Ile	Glu	Val	Ile	Arg	Pro	Asp	Ile	Ala
				185					190					195
Ala	Leu	Val	Arg	Gln	Val	Ile	Ile	Lys	Lys	Lys	Glu	Asp	Leu	
				200					205					

<210> 30
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 30
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<210> 31
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 31
 gtatcttggtc aaccctgagg 20

<210> 32
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 32
 taaccagagc tgctatgtca ggcc 24

<210> 33

<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
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<210> 34
<211> 3721
<212> DNA
<213> Homo Sapien

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 aaaaaaaaa aaaaaaaaa a 3721

<210> 35

<211> 888

<212> PRT

<213> Homo Sapien

<400> 35

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Pro	Pro	Pro	Leu	Ser	Val	Ala	Pro	Arg	Asp	Tyr	Leu	Asn	His	Tyr	35	40	45
Pro	Val	Phe	Val	Gly	Ser	Gly	Pro	Gly	Arg	Leu	Thr	Pro	Ala	Glu	50	55	60
Gly	Ala	Asp	Asp	Leu	Asn	Ile	Gln	Arg	Val	Leu	Arg	Val	Asn	Arg	65	70	75
Thr	Leu	Phe	Ile	Gly	Asp	Arg	Asp	Asn	Leu	Tyr	Arg	Val	Glu	Leu	80	85	90
Glu	Pro	Pro	Thr	Ser	Thr	Glu	Leu	Arg	Tyr	Gln	Arg	Lys	Leu	Thr	95	100	105
Trp	Arg	Ser	Asn	Pro	Ser	Asp	Ile	Asn	Val	Cys	Arg	Met	Lys	Gly	110	115	120
Lys	Gln	Glu	Gly	Glu	Cys	Arg	Asn	Phe	Val	Lys	Val	Leu	Leu	Leu	125	130	135
Arg	Asp	Glu	Ser	Thr	Leu	Phe	Val	Cys	Gly	Ser	Asn	Ala	Phe	Asn	140	145	150
Pro	Val	Cys	Ala	Asn	Tyr	Ser	Ile	Asp	Thr	Leu	Gln	Pro	Val	Gly	155	160	165
Asp	Asn	Ile	Ser	Gly	Met	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Lys	His	170	175	180
Ala	Asn	Val	Ala	Leu	Phe	Ser	Asp	Gly	Met	Leu	Phe	Thr	Ala	Thr	185	190	195
Val	Thr	Asp	Phe	Leu	Ala	Ile	Asp	Ala	Val	Ile	Tyr	Arg	Ser	Leu	200	205	210
Gly	Asp	Arg	Pro	Thr	Leu	Arg	Thr	Val	Lys	His	Asp	Ser	Lys	Trp	215	220	225
Phe	Lys	Glu	Pro	Tyr	Phe	Val	His	Ala	Val	Glu	Trp	Gly	Ser	His	230	235	240
Val	Tyr	Phe	Phe	Phe	Arg	Glu	Ile	Ala	Met	Glu	Phe	Asn	Tyr	Leu	245	250	255
Glu	Lys	Val	Val	Val	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	260	265	270
Val	Gly	Gly	Ser	Pro	Arg	Val	Leu	Glu	Lys	Gln	Trp	Thr	Ser	Phe	275	280	285
Leu	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Val	Pro	Gly	Asp	Ser	His	Phe	290	295	300
Tyr	Phe	Asn	Val	Leu	Gln	Ala	Val	Thr	Gly	Val	Val	Ser	Leu	Gly			

				305					310					315
Gly	Arg	Pro	Val	Val	Leu	Ala	Val	Phe	Ser	Thr	Pro	Ser	Asn	Ser
				320					325					330
Ile	Pro	Gly	Ser	Ala	Val	Cys	Ala	Phe	Asp	Leu	Thr	Gln	Val	Ala
				335					340					345
Ala	Val	Phe	Glu	Gly	Arg	Phe	Arg	Glu	Gln	Lys	Ser	Pro	Glu	Ser
				350					355					360
Ile	Trp	Thr	Pro	Val	Pro	Glu	Asp	Gln	Val	Pro	Arg	Pro	Arg	Pro
				365					370					375
Gly	Cys	Cys	Ala	Ala	Pro	Gly	Met	Gln	Tyr	Asn	Ala	Ser	Ser	Ala
				380					385					390
Leu	Pro	Asp	Asp	Ile	Leu	Asn	Phe	Val	Lys	Thr	His	Pro	Leu	Met
				395					400					405
Asp	Glu	Ala	Val	Pro	Ser	Leu	Gly	His	Ala	Pro	Trp	Ile	Leu	Arg
				410					415					420
Thr	Leu	Met	Arg	His	Gln	Leu	Thr	Arg	Val	Ala	Val	Asp	Val	Gly
				425					430					435
Ala	Gly	Pro	Trp	Gly	Asn	Gln	Thr	Val	Val	Phe	Leu	Gly	Ser	Glu
				440					445					450
Ala	Gly	Thr	Val	Leu	Lys	Phe	Leu	Val	Arg	Pro	Asn	Ala	Ser	Thr
				455					460					465
Ser	Gly	Thr	Ser	Gly	Leu	Ser	Val	Phe	Leu	Glu	Glu	Phe	Glu	Thr
				470					475					480
Tyr	Arg	Pro	Asp	Arg	Cys	Gly	Arg	Pro	Gly	Gly	Gly	Glu	Thr	Gly
				485					490					495
Gln	Arg	Leu	Leu	Ser	Leu	Glu	Leu	Asp	Ala	Ala	Ser	Gly	Gly	Leu
				500					505					510
Leu	Ala	Ala	Phe	Pro	Arg	Cys	Val	Val	Arg	Val	Pro	Val	Ala	Arg
				515					520					525
Cys	Gln	Gln	Tyr	Ser	Gly	Cys	Met	Lys	Asn	Cys	Ile	Gly	Ser	Gln
				530					535					540
Asp	Pro	Tyr	Cys	Gly	Trp	Ala	Pro	Asp	Gly	Ser	Cys	Ile	Phe	Leu
				545					550					555
Ser	Pro	Gly	Thr	Arg	Ala	Ala	Phe	Glu	Gln	Asp	Val	Ser	Gly	Ala
				560					565					570
Ser	Thr	Ser	Gly	Leu	Gly	Asp	Cys	Thr	Gly	Leu	Leu	Arg	Ala	Ser
				575					580					585
Leu	Ser	Glu	Asp	Arg	Ala	Gly	Leu	Val	Ser	Val	Asn	Leu	Leu	Val
				590					595					600

Thr	Ser	Ser	Val	Ala	Ala	Phe	Val	Val	Gly	Ala	Val	Val	Ser	Gly	605	610	615
Phe	Ser	Val	Gly	Trp	Phe	Val	Gly	Leu	Arg	Glu	Arg	Arg	Glu	Leu	620	625	630
Ala	Arg	Arg	Lys	Asp	Lys	Glu	Ala	Ile	Leu	Ala	His	Gly	Ala	Gly	635	640	645
Glu	Ala	Val	Leu	Ser	Val	Ser	Arg	Leu	Gly	Glu	Arg	Arg	Ala	Gln	650	655	660
Gly	Pro	Gly	Gly	Arg	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Ala	Gly	Val	665	670	675
Pro	Pro	Glu	Ala	Leu	Leu	Ala	Pro	Leu	Met	Gln	Asn	Gly	Trp	Ala	680	685	690
Lys	Ala	Thr	Leu	Leu	Gln	Gly	Gly	Pro	His	Asp	Leu	Asp	Ser	Gly	695	700	705
Leu	Leu	Pro	Thr	Pro	Glu	Gln	Thr	Pro	Leu	Pro	Gln	Lys	Arg	Leu	710	715	720
Pro	Thr	Pro	His	Pro	His	Pro	His	Ala	Leu	Gly	Pro	Arg	Ala	Trp	725	730	735
Asp	His	Gly	His	Pro	Leu	Leu	Pro	Ala	Ser	Ala	Ser	Ser	Ser	Leu	740	745	750
Leu	Leu	Leu	Ala	Pro	Ala	Arg	Ala	Pro	Glu	Gln	Pro	Pro	Ala	Pro	755	760	765
Gly	Glu	Pro	Thr	Pro	Asp	Gly	Arg	Leu	Tyr	Ala	Ala	Arg	Pro	Gly	770	775	780
Arg	Ala	Ser	His	Gly	Asp	Phe	Pro	Leu	Thr	Pro	His	Ala	Ser	Pro	785	790	795
Asp	Arg	Arg	Arg	Val	Val	Ser	Ala	Pro	Thr	Gly	Pro	Leu	Asp	Pro	800	805	810
Ala	Ser	Ala	Ala	Asp	Gly	Leu	Pro	Arg	Pro	Trp	Ser	Pro	Pro	Pro	815	820	825
Thr	Gly	Ser	Leu	Arg	Arg	Pro	Leu	Gly	Pro	His	Ala	Pro	Pro	Ala	830	835	840
Ala	Thr	Leu	Arg	Arg	Thr	His	Thr	Phe	Asn	Ser	Gly	Glu	Ala	Arg	845	850	855
Pro	Gly	Asp	Arg	His	Arg	Gly	Cys	His	Ala	Arg	Pro	Gly	Thr	Asp	860	865	870
Leu	Ala	His	Leu	Leu	Pro	Tyr	Gly	Gly	Ala	Asp	Arg	Thr	Ala	Pro	875	880	885
Pro	Val	Pro															

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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 37
atacaccg agtactgctg gcag 24

<210> 38
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 38
agacagggca gcggctgctg agcttgagc tggacgcagc tt 42

<210> 39
<211> 2014
<212> DNA
<213> Homo Sapien

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gattgtttgc agtatgaaga cacatttcta cttatgcagt attctcatga 1950
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 ttaaaggaaa aaaa 2014

<210> 40
 <211> 502
 <212> PRT
 <213> Homo Sapien

<400> 40
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 Lys Ser Glu Ile Trp Gly Pro Gly Leu Lys Ala Asp Val Val Leu
 35 40 45
 Pro Ala Arg Tyr Phe Tyr Ile Gln Ala Val Asp Thr Ser Gly Asn
 50 55 60
 Lys Phe Thr Ser Ser Pro Gly Glu Lys Val Phe Gln Val Lys Val
 65 70 75
 Ser Ala Pro Glu Glu Gln Phe Thr Arg Val Gly Val Gln Val Leu
 80 85 90
 Asp Arg Lys Asp Gly Ser Phe Ile Val Arg Tyr Arg Met Tyr Ala
 95 100 105
 Ser Tyr Lys Asn Leu Lys Val Glu Ile Lys Phe Gln Gly Gln His
 110 115 120
 Val Ala Lys Ser Pro Tyr Ile Leu Lys Gly Pro Val Tyr His Glu
 125 130 135
 Asn Cys Asp Cys Pro Leu Gln Asp Ser Ala Ala Trp Leu Arg Glu
 140 145 150
 Met Asn Cys Pro Glu Thr Ile Ala Gln Ile Gln Arg Asp Leu Ala
 155 160 165
 His Phe Pro Ala Val Asp Pro Glu Lys Ile Ala Val Glu Ile Pro
 170 175 180
 Lys Arg Phe Gly Gln Arg Gln Ser Leu Cys His Tyr Thr Leu Lys
 185 190 195
 Asp Asn Lys Val Tyr Ile Lys Thr His Gly Glu His Val Gly Phe
 200 205 210
 Arg Ile Phe Met Asp Ala Ile Leu Leu Ser Leu Thr Arg Lys Val
 215 220 225
 Lys Met Pro Asp Val Glu Leu Phe Val Asn Leu Gly Asp Trp Pro

230	235	240
Leu Glu Lys Lys Lys Ser Asn Ser Asn	Ile His Pro Ile Phe Ser	
245	250	255
Trp Cys Gly Ser Thr Asp Ser Lys Asp	Ile Val Met Pro Thr Tyr	
260	265	270
Asp Leu Thr Asp Ser Val Leu Glu Thr	Met Gly Arg Val Ser Leu	
275	280	285
Asp Met Met Ser Val Gln Ala Asn Thr	Gly Pro Pro Trp Glu Ser	
290	295	300
Lys Asn Ser Thr Ala Val Trp Arg Gly	Arg Asp Ser Arg Lys Glu	
305	310	315
Arg Leu Glu Leu Val Lys Leu Ser Arg	Lys His Pro Glu Leu Ile	
320	325	330
Asp Ala Ala Phe Thr Asn Phe Phe Phe	Phe Lys His Asp Glu Asn	
335	340	345
Leu Tyr Gly Pro Ile Val Lys His Ile	Ser Phe Phe Asp Phe Phe	
350	355	360
Lys His Lys Tyr Gln Ile Asn Ile Asp	Gly Thr Val Ala Ala Tyr	
365	370	375
Arg Leu Pro Tyr Leu Leu Val Gly Asp	Ser Val Val Leu Lys Gln	
380	385	390
Asp Ser Ile Tyr Tyr Glu His Phe Tyr	Asn Glu Leu Gln Pro Trp	
395	400	405
Lys His Tyr Ile Pro Val Lys Ser Asn	Leu Ser Asp Leu Leu Glu	
410	415	420
Lys Leu Lys Trp Ala Lys Asp His Asp	Glu Glu Ala Lys Lys Ile	
425	430	435
Ala Lys Ala Gly Gln Glu Phe Ala Arg	Asn Asn Leu Met Gly Asp	
440	445	450
Asp Ile Phe Cys Tyr Tyr Phe Lys Leu	Phe Gln Glu Tyr Ala Asn	
455	460	465
Leu Gln Val Ser Glu Pro Gln Ile Arg	Glu Gly Met Lys Arg Val	
470	475	480
Glu Pro Gln Thr Glu Asp Asp Leu Phe	Pro Cys Thr Cys His Arg	
485	490	495
Lys Lys Thr Lys Asp Glu Leu		
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<210> 41
<211> 26

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 42
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 42
cgataagctg ctacagtgcc atcg 24

<210> 43
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<212> DNA
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<400> 43
gtgactgtcc tctgcaagat agtgcagcct ggctacggga 40

<210> 44
<211> 2395
<212> DNA
<213> Homo Sapien

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<211> 310

<212> PRT

<213> Homo Sapien

<400> 45

Met	Arg	Leu	Gly	Ser	Gly	Thr	Phe	Ala	Thr	Cys	Cys	Val	Ala	Ile
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Glu	Val	Leu	Gly	Ile	Ala	Val	Phe	Leu	Arg	Gly	Phe	Phe	Pro	Ala
				20					25					30
Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro
				35					40					45
Ala	Pro	Glu	Pro	Ser	Ala	Gly	Ala	Ser	Ser	Asn	Trp	Thr	Thr	Leu
				50					55					60
Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala
				65					70					75
Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met
				80					85					90
Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe
				95					100					105
Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys
				110					115					120
Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg
				125					130					135
Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln
				140					145					150
Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr
				155					160					165
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr
				170					175					180

Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
				185					190					195
Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile
				200					205					210
Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser
				215					220					225
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp
				230					235					240
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg
				245					250					255
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly
				260					265					270
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val
				275					280					285
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro
				290					295					300
Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln					
				305					310					

<210> 46
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 46
 cgggactttc gctacctgtt gc 22

<210> 47
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 47
 catcatattc cacaaaatgc ttgagg 26

<210> 48
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 48

ccttcgggga ttcttcccgg ctcccgttcg ttcctctg 38

<210> 49

<211> 918

<212> DNA

<213> Homo Sapien

<400> 49

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ctgcgctctg cctgacaggg tcccaagccc tgcagtgcta cagctttgag 150
cacacctact ttggcccctt tgacctcagg gccatgaagc tgcccagcat 200
ctcctgtcct catgagtgtt ttgaggctat cctgtctctg gacaccgggt 250
atcgcgcgcc ggtgaccctg gtgcggaagg gctgctggac cgggcctcct 300
gcgggccaga cgcaatcgaa cccggacgag ctgccgccag actactcggg 350
ggtgcgcgcc tgcacaactg acaaatgcaa cgcccacctc atgactcatg 400
acgccctccc caacctgagc caagcaccgc acccgccgac gctcagcggc 450
gccgagtgtt acgcctgtat cgggggtccac caggatgact gcgctatcgg 500
cagggtcccga cgagtccagt gtcaccagga ccagaccgcc tgcttccagg 550
gcagtggcag aatgacagtt ggcaatttct cagtccctgt gtacatcaga 600
acctgccacc ggccctcctg caccaccgag ggcaccacca gccctgggac 650
agccatcgac ctccaggggt cctgctgtga ggggtacctc tgcaacagga 700
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gcactacagg tcttggccct gctcctccca gtcctcctgc tgggtggggct 800
ctcagcatag accgcccctc caggatgtct gggacagggc tcacacacct 850
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aaagtaagaa ttgcaaaa 918

<210> 50

<211> 251

<212> PRT

<213> Homo Sapien

<400> 50

Met	Ala	Met	Gly	Val	Pro	Arg	Val	Ile	Leu	Leu	Cys	Leu	Phe	Gly
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Ala	Ala	Leu	Cys	Leu	Thr	Gly	Ser	Gln	Ala	Leu	Gln	Cys	Tyr	Ser
				20					25					30

Phe	Glu	His	Thr	Tyr	Phe	Gly	Pro	Phe	Asp	Leu	Arg	Ala	Met	Lys
				35					40					45
Leu	Pro	Ser	Ile	Ser	Cys	Pro	His	Glu	Cys	Phe	Glu	Ala	Ile	Leu
				50					55					60
Ser	Leu	Asp	Thr	Gly	Tyr	Arg	Ala	Pro	Val	Thr	Leu	Val	Arg	Lys
				65					70					75
Gly	Cys	Trp	Thr	Gly	Pro	Pro	Ala	Gly	Gln	Thr	Gln	Ser	Asn	Pro
				80					85					90
Asp	Ala	Leu	Pro	Pro	Asp	Tyr	Ser	Val	Val	Arg	Gly	Cys	Thr	Thr
				95					100					105
Asp	Lys	Cys	Asn	Ala	His	Leu	Met	Thr	His	Asp	Ala	Leu	Pro	Asn
				110					115					120
Leu	Ser	Gln	Ala	Pro	Asp	Pro	Pro	Thr	Leu	Ser	Gly	Ala	Glu	Cys
				125					130					135
Tyr	Ala	Cys	Ile	Gly	Val	His	Gln	Asp	Asp	Cys	Ala	Ile	Gly	Arg
				140					145					150
Ser	Arg	Arg	Val	Gln	Cys	His	Gln	Asp	Gln	Thr	Ala	Cys	Phe	Gln
				155					160					165
Gly	Ser	Gly	Arg	Met	Thr	Val	Gly	Asn	Phe	Ser	Val	Pro	Val	Tyr
				170					175					180
Ile	Arg	Thr	Cys	His	Arg	Pro	Ser	Cys	Thr	Thr	Glu	Gly	Thr	Thr
				185					190					195
Ser	Pro	Trp	Thr	Ala	Ile	Asp	Leu	Gln	Gly	Ser	Cys	Cys	Glu	Gly
				200					205					210
Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala
				215					220					225
Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu
				230					235					240
Leu	Pro	Val	Leu	Leu	Leu	Val	Gly	Leu	Ser	Ala				
				245					250					

<210> 51
 <211> 3288
 <212> DNA
 <213> Homo Sapien

<400> 51
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 gattgggaaa gggaaaggac aaaaaagacc cctgggctac acggcgtagg 100
 tgcagggttt cctactgctg ttcttttatg ctgggagctg tggctgtaac 150
 caactaggaa ataacgtatg cagcagctat ggctgtcaga gagttgtgct 200

tcccaagaca aaggcaagtc ctgtttcttt ttcttttttg gggagtgtcc 250
ttggcagggt ctgggttttg acgttattcg gtgactgagg aaacagagaa 300
aggatccttt gtggtcaatc tggcaaagga tctgggacta gcagaggggg 350
agctggctgc aaggggaacc aggggtggtt ccgatgataa caaacaatac 400
ctgctcctgg attcacatac cggaatttg ctcacaaatg agaaactgga 450
ccgagagaag ctgtgtggcc ctaaagagcc ctgtatgctg tatttccaaa 500
ttttaatgga tgatcccttt cagatttacc gggctgagct gagagtcagg 550
gatataaatg atcacgcgcc agtatttcag gacaaagaaa cagtcttaaa 600
aatatcagaa aatacagctg aagggacagc atttagacta gaaagagcac 650
aggatccaga tggaggactt aacggtatcc aaaactacac gatcagcccc 700
aactcttttt tccatattaa cattagtggc ggtgatgaag gcatgatata 750
tccagagcta gtgttgga aagcactgga tcgggaggag cagggagagc 800
tcagcttaac cctcacagcg ctggatggtg ggtctccatc caggctctggg 850
acctctactg tacgcacgtg tgtcttgga gtcaatgaca atgccccaca 900
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ggttccttat tgtaaggtg tgggcagaag atgtagactc tggagtcaac 1000
gcggaagtat cctattcatt ttttgatgcc tcagaaaata ttcgaacgac 1050
ctttcaaac aatccttttt ctggggaaat ctttctcaga gaattgcttg 1100
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gacttgggga caccagggt gaaaaccgag cacaacataa cggtcctggt 1500
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tgttcgtccg cgagaacaac agccccgcc tgcacatcg cagcgtcagc 1600
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 tttctacatc atgtatttaa aaagaaatat ttcttacta ctatgctcat 3050
 gacaaaatga aacaaagcat attgtgagca atactgaaca tcaataatac 3100

ccttagttta tataacttatt attttatctt taagcatgct acttttactt 3150
 ggccaatatt ttcttatggt aacttttgct gatgtataaa acagactatg 3200
 ccttataatt gaaataaaat tataatctgc ctgaaaatga ataaaaataa 3250
 aacattttga aatgtgaaaa aaaaaaaaaa aaaaaaaaaa 3288

<210> 52
 <211> 800
 <212> PRT
 <213> Homo Sapien

<400> 52
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 20 25 30
 Gly Arg Tyr Ser Val Thr Glu Glu Thr Glu Lys Gly Ser Phe Val
 35 40 45
 Val Asn Leu Ala Lys Asp Leu Gly Leu Ala Glu Gly Glu Leu Ala
 50 55 60
 Ala Arg Gly Thr Arg Val Val Ser Asp Asp Asn Lys Gln Tyr Leu
 65 70 75
 Leu Leu Asp Ser His Thr Gly Asn Leu Leu Thr Asn Glu Lys Leu
 80 85 90
 Asp Arg Glu Lys Leu Cys Gly Pro Lys Glu Pro Cys Met Leu Tyr
 95 100 105
 Phe Gln Ile Leu Met Asp Asp Pro Phe Gln Ile Tyr Arg Ala Glu
 110 115 120
 Leu Arg Val Arg Asp Ile Asn Asp His Ala Pro Val Phe Gln Asp
 125 130 135
 Lys Glu Thr Val Leu Lys Ile Ser Glu Asn Thr Ala Glu Gly Thr
 140 145 150
 Ala Phe Arg Leu Glu Arg Ala Gln Asp Pro Asp Gly Gly Leu Asn
 155 160 165
 Gly Ile Gln Asn Tyr Thr Ile Ser Pro Asn Ser Phe Phe His Ile
 170 175 180
 Asn Ile Ser Gly Gly Asp Glu Gly Met Ile Tyr Pro Glu Leu Val
 185 190 195
 Leu Asp Lys Ala Leu Asp Arg Glu Glu Gln Gly Glu Leu Ser Leu
 200 205 210
 Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Ser Arg Ser Gly Thr
 215 220 225

Ser Thr Val Arg	Ile Val Val Leu Asp	Val Asn Asp Asn Ala	Pro
	230	235	240
Gln Phe Ala Gln	Ala Leu Tyr Glu Thr	Gln Ala Pro Glu Asn	Ser
	245	250	255
Pro Ile Gly Phe	Leu Ile Val Lys Val	Trp Ala Glu Asp Val	Asp
	260	265	270
Ser Gly Val Asn	Ala Glu Val Ser Tyr	Ser Phe Phe Asp Ala	Ser
	275	280	285
Glu Asn Ile Arg	Thr Thr Phe Gln Ile	Asn Pro Phe Ser Gly	Glu
	290	295	300
Ile Phe Leu Arg	Glu Leu Leu Asp Tyr	Glu Leu Val Asn Ser	Tyr
	305	310	315
Lys Ile Asn Ile	Gln Ala Met Asp Gly	Gly Gly Leu Ser Ala	Arg
	320	325	330
Cys Arg Val Leu	Val Glu Val Leu Asp	Thr Asn Asp Asn Pro	Pro
	335	340	345
Glu Leu Ile Val	Ser Ser Phe Ser Asn	Ser Val Ala Glu Asn	Ser
	350	355	360
Pro Glu Thr Pro	Leu Ala Val Phe Lys	Ile Asn Asp Arg Asp	Ser
	365	370	375
Gly Glu Asn Gly	Lys Met Val Cys Tyr	Ile Gln Glu Asn Leu	Pro
	380	385	390
Phe Leu Leu Lys	Pro Ser Val Glu Asn	Phe Tyr Ile Leu Ile	Thr
	395	400	405
Glu Gly Ala Leu	Asp Arg Glu Ile Arg	Ala Glu Tyr Asn Ile	Thr
	410	415	420
Ile Thr Val Thr	Asp Leu Gly Thr Pro	Arg Leu Lys Thr Glu	His
	425	430	435
Asn Ile Thr Val	Leu Val Ser Asp Val	Asn Asp Asn Ala Pro	Ala
	440	445	450
Phe Thr Gln Thr	Ser Tyr Thr Leu Phe	Val Arg Glu Asn Asn	Ser
	455	460	465
Pro Ala Leu His	Ile Gly Ser Val Ser	Ala Thr Asp Arg Asp	Ser
	470	475	480
Gly Thr Asn Ala	Gln Val Thr Tyr Ser	Leu Leu Pro Pro Gln	Asp
	485	490	495
Pro His Leu Pro	Leu Ala Ser Leu Val	Ser Ile Asn Ala Asp	Asn
	500	505	510
Gly His Leu Phe	Ala Leu Arg Ser Leu	Asp Tyr Glu Ala Leu	Gln

515					520					525				
Ala	Phe	Glu	Phe	Arg	Val	Gly	Ala	Thr	Asp	Arg	Gly	Ser	Pro	Ala
				530					535					540
Leu	Ser	Arg	Glu	Ala	Leu	Val	Arg	Val	Leu	Val	Leu	Asp	Ala	Asn
				545					550					555
Asp	Asn	Ser	Pro	Phe	Val	Leu	Tyr	Pro	Leu	Gln	Asn	Gly	Ser	Ala
				560					565					570
Pro	Cys	Thr	Glu	Leu	Val	Pro	Arg	Ala	Ala	Glu	Pro	Gly	Tyr	Leu
				575					580					585
Val	Thr	Lys	Val	Val	Ala	Val	Asp	Gly	Asp	Ser	Gly	Gln	Asn	Ala
				590					595					600
Trp	Leu	Ser	Tyr	Gln	Leu	Leu	Lys	Ala	Thr	Glu	Pro	Gly	Leu	Phe
				605					610					615
Gly	Val	Trp	Ala	His	Asn	Gly	Glu	Val	Arg	Thr	Ala	Arg	Leu	Leu
				620					625					630
Ser	Glu	Arg	Asp	Ala	Ala	Lys	His	Arg	Leu	Val	Val	Leu	Val	Lys
				635					640					645
Asp	Asn	Gly	Glu	Pro	Pro	Arg	Ser	Ala	Thr	Ala	Thr	Leu	His	Leu
				650					655					660
Leu	Leu	Val	Asp	Gly	Phe	Ser	Gln	Pro	Tyr	Leu	Pro	Leu	Pro	Glu
				665					670					675
Ala	Ala	Pro	Ala	Gln	Ala	Gln	Ala	Glu	Ala	Asp	Leu	Leu	Thr	Val
				680					685					690
Tyr	Leu	Val	Val	Ala	Leu	Ala	Ser	Val	Ser	Ser	Leu	Phe	Leu	Leu
				695					700					705
Ser	Val	Leu	Leu	Phe	Val	Ala	Val	Arg	Leu	Cys	Arg	Arg	Ser	Arg
				710					715					720
Ala	Ala	Ser	Val	Gly	Arg	Cys	Ser	Val	Pro	Glu	Gly	Pro	Phe	Pro
				725					730					735
Gly	His	Leu	Val	Asp	Val	Arg	Gly	Ala	Glu	Thr	Leu	Ser	Gln	Ser
				740					745					750
Tyr	Gln	Tyr	Glu	Val	Cys	Leu	Thr	Gly	Gly	Pro	Gly	Thr	Ser	Glu
				755					760					765
Phe	Lys	Phe	Leu	Lys	Pro	Val	Ile	Ser	Asp	Ile	Gln	Ala	Gln	Gly
				770					775					780
Pro	Gly	Arg	Lys	Gly	Glu	Glu	Asn	Ser	Thr	Phe	Arg	Asn	Ser	Phe
				785					790					795
Gly	Phe	Asn	Ile	Gln										
				800										

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
ctggggagtg tccttggcag gttc 24

<210> 54
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 54
cagcatcacag ggctctttag ggcacac 27

<210> 55
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 55
cggtgactga ggaaacagag aaaggatcct ttgtgggtcaa tctggc 46

<210> 56
<211> 2242
<212> DNA
<213> Homo Sapien

<220>
<221> unsure
<222> 2181
<223> unknown base

<400> 56
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tataccagcc tcgtcttcct tccgggggac aacgtgggtc agggcacaga 100
gagatattta atgtcacct cttgggggctt tcatgggact ccctctgcca 150
catttttttg aggttgggaa agttgctaga ggcttcagaa ctccagccta 200
atggatccca aactcgggag aatggctgcg tccctgctgg ctgtgctgct 250
gctgctgctg gagcgcgga tgttctcctc accctccccg cccccggcgc 300
tgttagagaa agtcttcag tacattgacc tccatcagga tgaatttgctg 350

cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400
gcctcgcttc agacaagagc tcttcagaat gatggccgtg gctgcggaca 450
cgctgcagcg cctggggggcc cgtgtggcct cggtggacat gggtcctcag 500
cagctgcccc atggtcagag tcttccaata cctcccgta tcctggccga 550
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acgtgcagcc tgctgaccgg ggcgatgggt ggctcacgga cccctatgtg 650
ctgacggagg tagacgggaa actttatgga cgaggagcga cgcacaaca 700
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aaatatccag agaatttggg tctagtatag tacattttcc cttccattta 1850
 aaatgtcttg ggatatctgg atcagtaata aaatatttca aaggcacaga 1900
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 atcattccat ccaatgatcg cctttgcttt accactcttt ccttttatct 2150
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

<210> 57
 <211> 507
 <212> PRT
 <213> Homo Sapien

<400> 57
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 Leu Leu Leu Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro
 20 25 30
 Pro Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His
 35 40 45
 Gln Asp Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu
 50 55 60
 Ser Asp Ser Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe
 65 70 75
 Arg Met Met Ala Val Ala Ala Asp Thr Leu Gln Arg Leu Gly Ala
 80 85 90
 Arg Val Ala Ser Val Asp Met Gly Pro Gln Gln Leu Pro Asp Gly
 95 100 105
 Gln Ser Leu Pro Ile Pro Pro Val Ile Leu Ala Glu Leu Gly Ser
 110 115 120
 Asp Pro Thr Lys Gly Thr Val Cys Phe Tyr Gly His Leu Asp Val
 125 130 135
 Gln Pro Ala Asp Arg Gly Asp Gly Trp Leu Thr Asp Pro Tyr Val
 140 145 150
 Leu Thr Glu Val Asp Gly Lys Leu Tyr Gly Arg Gly Ala Thr Asp
 155 160 165
 Asn Lys Gly Pro Val Leu Ala Trp Ile Asn Ala Val Ser Ala Phe

170										175					180				
Arg	Ala	Leu	Glu	Gln	Asp	Leu	Pro	Val	Asn	Ile	Lys	Phe	Ile	Ile					
				185					190					195					
Glu	Gly	Met	Glu	Glu	Ala	Gly	Ser	Val	Ala	Leu	Glu	Glu	Leu	Val					
				200					205					210					
Glu	Lys	Glu	Lys	Asp	Arg	Phe	Phe	Ser	Gly	Val	Asp	Tyr	Ile	Val					
				215					220					225					
Ile	Ser	Asp	Asn	Leu	Trp	Ile	Ser	Gln	Arg	Lys	Pro	Ala	Ile	Thr					
				230					235					240					
Tyr	Gly	Thr	Arg	Gly	Asn	Ser	Tyr	Phe	Met	Val	Glu	Val	Lys	Cys					
				245					250					255					
Arg	Asp	Gln	Asp	Phe	His	Ser	Gly	Thr	Phe	Gly	Gly	Ile	Leu	His					
				260					265					270					
Glu	Pro	Met	Ala	Asp	Leu	Val	Ala	Leu	Leu	Gly	Ser	Leu	Val	Asp					
				275					280					285					
Ser	Ser	Gly	His	Ile	Leu	Val	Pro	Gly	Ile	Tyr	Asp	Glu	Val	Val					
				290					295					300					
Pro	Leu	Thr	Glu	Glu	Glu	Ile	Asn	Thr	Tyr	Lys	Ala	Ile	His	Leu					
				305					310					315					
Asp	Leu	Glu	Glu	Tyr	Arg	Asn	Ser	Ser	Arg	Val	Glu	Lys	Phe	Leu					
				320					325					330					
Phe	Asp	Thr	Lys	Glu	Glu	Ile	Leu	Met	His	Leu	Trp	Arg	Tyr	Pro					
				335					340					345					
Ser	Leu	Ser	Ile	His	Gly	Ile	Glu	Gly	Ala	Phe	Asp	Glu	Pro	Gly					
				350					355					360					
Thr	Lys	Thr	Val	Ile	Pro	Gly	Arg	Val	Ile	Gly	Lys	Phe	Ser	Ile					
				365					370					375					
Arg	Leu	Val	Pro	His	Met	Asn	Val	Ser	Ala	Val	Glu	Lys	Gln	Val					
				380					385					390					
Thr	Arg	His	Leu	Glu	Asp	Val	Phe	Ser	Lys	Arg	Asn	Ser	Ser	Asn					
				395					400					405					
Lys	Met	Val	Val	Ser	Met	Thr	Leu	Gly	Leu	His	Pro	Trp	Ile	Ala					
				410					415					420					
Asn	Ile	Asp	Asp	Thr	Gln	Tyr	Leu	Ala	Ala	Lys	Arg	Ala	Ile	Arg					
				425					430					435					
Thr	Val	Phe	Gly	Thr	Glu	Pro	Asp	Met	Ile	Arg	Asp	Gly	Ser	Thr					
				440					445					450					
Ile	Pro	Ile	Ala	Lys	Met	Phe	Gln	Glu	Ile	Val	His	Lys	Ser	Val					
				455					460					465					

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln
470 475 480

Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu
485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His
500 505

<210> 58

<211> 1470

<212> DNA

<213> Homo Sapien

<400> 58

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ctttgtcatg ggacctgtgc ggttgggaat attgcttttc ctttttttg 150
ccgtgcacga ggcttgggct gggatgttga aggaggagga cgatgacaca 200
gaacgcttgc ccagcaaagtg cgaagtgtgt aagctgctga gcacagagct 250
acaggcggaa ctgagtcgca ccggtcgatc tcgagaggtg ctggagctgg 300
ggcaggtgct ggatacaggc aagaggaaga gacacgtgcc ttacagcgtt 350
tcagagacaa ggctggaaga ggcttagag aatttatgtg agcggatcct 400
ggactatagt gttcacgctg agcgcaaggg ctactgaga tatgccaagg 450
gtcagagtca gaccatggca aactgaaag gcctagtga gaagggggtg 500
aaggtggatc tggggatccc tctggagctt tgggatgagc ccagcgtgga 550
ggtcacatac ctcaagaagc agtgtgagac catgttggag gagtttgaag 600
acattgtggg agactggtac ttccaccatc aggagcagcc cctacaaaat 650
tttctctgtg aaggtcatgt gctcccagct gctgaaactg catgtctaca 700
ggaaacttgg actggaaagg agatcacaga tggggaagag aaaacagaag 750
gggaggaaga gcaggaggag gaggaggaag aggaggaaga ggaaggggga 800
gacaagatga ccaagacagg aagccacccc aaacttgacc gagaagatct 850
ttgacccttg cctttgagcc ccaggagggg gaagggatca tggagagccc 900
tctaaagcct gcactctccc tgctccacag ctttcagggt gtgtttatga 950
gtgactccac ccaagcttgt agctgttctc tcccatctaa cctcaggcaa 1000
gatcctggtg aaacagcatg acatggcttc tggggtggag ggtgggggtg 1050
gaggtcctgc tcctagagat gaactctatc cagcccctta attggcaggt 1100

gtatgtgctg acagtactga aagctttcct ctttaactga tcccaccccc 1150
 acccaaaagt cagcagtggc actggagctg tgggctttgg ggaagtcact 1200
 tagctcctta aggtctgttt ttagaccctt ccaaggaaga ggccagaacg 1250
 gacattctct gcgatctata tacattgcct gtatccagga ggctacacac 1300
 cagcaaaccg tgaaggagaa tgggacactg ggtcatggcc tggagttgct 1350
 gataatttag gtgggataga tacttgggtct acttaagctc aatgtaaccc 1400
 agagcccacc atatagtttt ataggtgctc aactttctat atcgctatta 1450
 aacttttttc tttttttcta 1470

<210> 59

<211> 248

<212> PRT

<213> Homo Sapien

<400> 59

Met	Gly	Pro	Val	Arg	Leu	Gly	Ile	Leu	Leu	Phe	Leu	Phe	Leu	Ala	1	5	10	15
Val	His	Glu	Ala	Trp	Ala	Gly	Met	Leu	Lys	Glu	Glu	Asp	Asp	Asp	20	25	30	
Thr	Glu	Arg	Leu	Pro	Ser	Lys	Cys	Glu	Val	Cys	Lys	Leu	Leu	Ser	35	40	45	
Thr	Glu	Leu	Gln	Ala	Glu	Leu	Ser	Arg	Thr	Gly	Arg	Ser	Arg	Glu	50	55	60	
Val	Leu	Glu	Leu	Gly	Gln	Val	Leu	Asp	Thr	Gly	Lys	Arg	Lys	Arg	65	70	75	
His	Val	Pro	Tyr	Ser	Val	Ser	Glu	Thr	Arg	Leu	Glu	Glu	Ala	Leu	80	85	90	
Glu	Asn	Leu	Cys	Glu	Arg	Ile	Leu	Asp	Tyr	Ser	Val	His	Ala	Glu	95	100	105	
Arg	Lys	Gly	Ser	Leu	Arg	Tyr	Ala	Lys	Gly	Gln	Ser	Gln	Thr	Met	110	115	120	
Ala	Thr	Leu	Lys	Gly	Leu	Val	Gln	Lys	Gly	Val	Lys	Val	Asp	Leu	125	130	135	
Gly	Ile	Pro	Leu	Glu	Leu	Trp	Asp	Glu	Pro	Ser	Val	Glu	Val	Thr	140	145	150	
Tyr	Leu	Lys	Lys	Gln	Cys	Glu	Thr	Met	Leu	Glu	Glu	Phe	Glu	Asp	155	160	165	
Ile	Val	Gly	Asp	Trp	Tyr	Phe	His	His	Gln	Glu	Gln	Pro	Leu	Gln	170	175	180	

Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala
				185					190					195
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu
				200					205					210
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Glu
				215					220					225
Glu	Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His
				230					235					240
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu							
				245										

<210> 60
 <211> 890
 <212> DNA
 <213> Homo Sapien

<400> 60
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 ctgcctgtcc ttctccctgt gcttaaccag aggtgcccat ggggtggaca 100
 atgaggctgg tcacagcagc actgttactg ggtctcatga tgggtggcac 150
 tggagacgag gatgagaaca gcccgtgtgc ccatgaggcc ctcttgacg 200
 aggacaccct cttttgccag ggccttgaag ttttctaccc agagttgggg 250
 aacattggct gcaaggttgt tcctgattgt aacaactaca gacagaagat 300
 cacctcctgg atggagccga tagtcaagtt cccggggggc gtggacggcg 350
 caacctatat cctggtgatg gtggatccag atgccctag cagagcagaa 400
 cccagacaga gattctggag acattggctg gtaacagata tcaagggcgc 450
 cgacctgaag aaagggaaga ttcagggccca ggagttatca gcctaccagg 500
 ctccctcccc accggcacac agtggcttcc atcgetacca gttctttgtc 550
 tatcttcagg aaggaaaagt catctctctc cttcccaagg aaaacaaaac 600
 tcgaggctct tggaaaatgg acagatttct gaaccgcttc cacctgggcg 650
 aacctgaagc aagcaccagc ttcattgacc agaactacca ggactcacca 700
 accctccagg ctcccagagg aagggccagc gagcccaagc acaaaaccag 750
 gcagagatag ctgcctgcta gatagccggc tttgccatcc gggcatgtgg 800
 ccacactgct caccaccgac gatgtgggta tggaaccccc tctggataca 850
 gaacccttc ttttccaaat taaaaaaaaa aatcatcaaa 890

<210> 61

<211> 223
 <212> PRT
 <213> Homo Sapien

<400> 61

Met	Gly	Trp	Thr	Met	Arg	Leu	Val	Thr	Ala	Ala	Leu	Leu	Leu	Gly	1	5	10	15
Leu	Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	20	25	30	
Ala	His	Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	35	40	45	
Leu	Glu	Val	Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	50	55	60	
Val	Pro	Asp	Cys	Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	65	70	75	
Glu	Pro	Ile	Val	Lys	Phe	Pro	Gly	Ala	Val	Asp	Gly	Ala	Thr	Tyr	80	85	90	
Ile	Leu	Val	Met	Val	Asp	Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	95	100	105	
Arg	Gln	Arg	Phe	Trp	Arg	His	Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	110	115	120	
Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile	Gln	Gly	Gln	Glu	Leu	Ser	Ala	125	130	135	
Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His	Ser	Gly	Phe	His	Arg	Tyr	140	145	150	
Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys	Val	Ile	Ser	Leu	Leu	155	160	165	
Pro	Lys	Glu	Asn	Lys	Thr	Arg	Gly	Ser	Trp	Lys	Met	Asp	Arg	Phe	170	175	180	
Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser	Thr	Gln	Phe	185	190	195	
Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala	Pro	Arg	200	205	210	
Gly	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Thr	Arg	Gln	Arg	215	220				

<210> 62
 <211> 1321
 <212> DNA
 <213> Homo Sapien

<400> 62

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tgtagataaa gaccctttct tgccagggtgc tgagacaacc acactatgag 100
 aggcaactcca ggagacgctg atggtggagg aagggccgtc tatcaatcaa 150
 tcaactgttgc tgttatcaca tgcaagtatc cagaggctct tgagcaaggc 200
 agaggggagc ccattttattt gggaatccag aatccagaaa tgtgtttgta 250
 ttgtgagaag gttggagaac agcccacatt gcagctaaaa gagcagaaga 300
 tcatggatct gtatggccaa cccgagcccg tgaaaccctt cttttctac 350
 cgtgccaaaga ctggtaggac ctccaccctt gagtctgtgg cttcccga 400
 ctggttcatt gcctcctcca agagagacca gcccatcatt ctgacttcag 450
 aacttgggaa gtcatacaac actgcctttg aattaaatat aaatgactga 500
 actcagccta gaggtggcag cttgggtctt gtcttaaagt ttctggttcc 550
 caatgtgttt tcgtctacat tttcttagtg tcattttcac gctggtgctg 600
 agacaggagc aaggctgctg ttatcatctc attttataat gaagaagaag 650
 caattacttc atagcaactg aagaacagga tgtggcctca gaagcaggag 700
 agctgggtgg tataaggctg tcctctcaag ctggtgctgt gtaggccaca 750
 aggcatctgc atgagtgact ttaagactca aagaccaaac actgagcttt 800
 cttctagggg tgggtatgaa gatgcttcag agctcatgcg cgttaccac 850
 gatggcatga ctagcacaga gctgatctct gtttctgttt tgctttattc 900
 cctcttggga tgatatcatc cagtctttat atgttgccaa tatacctcat 950
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 tcttgggatg atatcatcca gtctttatat gttgccaata tacctcattg 1150
 tgtgtaatag aaccttctta gcattaagac cttgtaaaca aaaataattc 1200
 ttgtgttaag ttaaatacatt tttgtcctaa ttgtaatgtg taatcttaaa 1250
 gttaaataaa ctttgtgtat ttatataata ataaagctaa aactgatata 1300
 aaataaagaa agagtaaact g 1321

<210> 63
 <211> 134
 <212> PRT
 <213> Homo Sapien
 <400> 63

Met	Arg	Gly	Thr	Pro	Gly	Asp	Ala	Asp	Gly	Gly	Gly	Arg	Ala	Val	1	5	10	15
Tyr	Gln	Ser	Ile	Thr	Val	Ala	Val	Ile	Thr	Cys	Lys	Tyr	Pro	Glu	20	25	30	
Ala	Leu	Glu	Gln	Gly	Arg	Gly	Asp	Pro	Ile	Tyr	Leu	Gly	Ile	Gln	35	40	45	
Asn	Pro	Glu	Met	Cys	Leu	Tyr	Cys	Glu	Lys	Val	Gly	Glu	Gln	Pro	50	55	60	
Thr	Leu	Gln	Leu	Lys	Glu	Gln	Lys	Ile	Met	Asp	Leu	Tyr	Gly	Gln	65	70	75	
Pro	Glu	Pro	Val	Lys	Pro	Phe	Leu	Phe	Tyr	Arg	Ala	Lys	Thr	Gly	80	85	90	
Arg	Thr	Ser	Thr	Leu	Glu	Ser	Val	Ala	Phe	Pro	Asp	Trp	Phe	Ile	95	100	105	
Ala	Ser	Ser	Lys	Arg	Asp	Gln	Pro	Ile	Ile	Leu	Thr	Ser	Glu	Leu	110	115	120	
Gly	Lys	Ser	Tyr	Asn	Thr	Ala	Phe	Glu	Leu	Asn	Ile	Asn	Asp	125	130			

<210> 64
 <211> 999
 <212> DNA
 <213> Homo Sapien

<400> 64
 gcgaggctgc accagcgcct ggcaccatga ggacgcctgg gcctctgccc 50
 gtgctgctgc tgctcctggc gggagcccc gccgcgcggc ccaactcccc 100
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 tcaacctcct gcaggtctcg gagccctcgg agccatgtgt gagataacctg 200
 cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgcg 250
 ggactttgtg gcctcgcccc cgtgttgaa agtggcccag gtagattcct 300
 tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350
 agagatttgg tattcctgtt ggatgactgc aatgccttgg aatacccaat 400
 cccagtgcact acggtcctgc cagatcgtca gcgctaaggg aactgagacc 450
 agagaaagaa cccaagagaa ctaaagttat gtcagctacc cagacttaat 500
 gggccagagc catgaccctc acaggtcttg tgtagttgt atctgaaact 550
 gttatgtatc tctctacctt ctggaaaaca gggctggtat tcctaccag 600
 gaacctcctt tgagcataga gttagcaacc atgcttctca ttcccttgac 650

tcattgtcttg ccaggatggg tagatacaca gcatgttgat ttggtcacta 700
aaaagaagaa aaggactaac aagcttcact tttatgaaca actattttga 750
gaacatgcac aatagtatgt ttttattact ggtttaatgg agtaatggta 800
cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
tatgcctttt tctaacacag actttcttca ctgtctttca tttaaaaaga 900
aattaatgct cttaagatat atattttacg tagtgctgac aggaccact 950
ctttcattga aaggatga aaatcaaata aagaatctct tcacatgga 999

<210> 65
<211> 136
<212> PRT
<213> Homo Sapien

<400> 65
Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Ala
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Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
20 25 30
Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
35 40 45
Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
50 55 60
Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
65 70 75
Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
80 85 90
Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
95 100 105
Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
110 115 120
Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
125 130 135

Arg

<210> 66
<211> 1893
<212> DNA
<213> Homo Sapien

<400> 66
gtctccgcgt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

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ccgtcgagtg tcagagatcc tgcagccgcc cagtcccggc cccctctccg 150
ccccacaccc accctcctgg ctcttcctgt ttttactcct ccttttcatt 200
cataacaaaa gctacagctc caggagccca gcgccgggct gtgacccaag 250
ccgagcgtgg aagaatgggg ttcctcggga ccggcacttg gattctggtg 300
ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaagacaa 350
atctctacat aatagagaat taagtgcaga aagacctttg aatgaacaga 400
ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450
aagccaggtc agagcaacta ttcttttggt gataacttga acctgctaaa 500
ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600
aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
taaatttcaa gatgatccag atggtcttca tcaactagac gggactcctt 700
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aatgacagag ccgtgtttga caagattggt tctaaactac ttaatctcgg 800
ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
ttttacaaaa attaatotca aaggaagcca acaattatga ggaggatccc 900
aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000
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tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150
aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200
atggtgaaat atggaacaat atctccagaa gaagtggttt cctaccttga 1250
aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300
atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350
catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450
gaaagacaga tgaacccaaa ggaaaaacag aagcctattt ggaagccatc 1500

agaaaaaata ttgaatgggt gaagaaacat gacaaaaagg gaaataaaga 1550
 agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600
 cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650
 cgcatttata gcagcctgta aaaatggcaa aagatccagg agtctttcaa 1700
 ctgtttcaga aaacataata tagcttaaaa cacttctaatt tctgtgatta 1750
 aaatTTTTTg acccaagggt tattagaaag tgctgaattt acagtagtta 1800
 accttttaca agtggttaaa acatagcttt cttcccgtaa aaactatctg 1850
 aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaa aaa 1893

<210> 67

<211> 468

<212> PRT

<213> Homo Sapien

<400> 67

Met	Gly	Phe	Leu	Gly	Thr	Gly	Thr	Trp	Ile	Leu	Val	Leu	Val	Leu	1	5	10	15
Pro	Ile	Gln	Ala	Phe	Pro	Lys	Pro	Gly	Gly	Ser	Gln	Asp	Lys	Ser	20	25	30	
Leu	His	Asn	Arg	Glu	Leu	Ser	Ala	Glu	Arg	Pro	Leu	Asn	Glu	Gln	35	40	45	
Ile	Ala	Glu	Ala	Glu	Glu	Asp	Lys	Ile	Lys	Lys	Thr	Tyr	Pro	Pro	50	55	60	
Glu	Asn	Lys	Pro	Gly	Gln	Ser	Asn	Tyr	Ser	Phe	Val	Asp	Asn	Leu	65	70	75	
Asn	Leu	Leu	Lys	Ala	Ile	Thr	Glu	Lys	Glu	Lys	Ile	Glu	Lys	Glu	80	85	90	
Arg	Gln	Ser	Ile	Arg	Ser	Ser	Pro	Leu	Asp	Asn	Lys	Leu	Asn	Val	95	100	105	
Glu	Asp	Val	Asp	Ser	Thr	Lys	Asn	Arg	Lys	Leu	Ile	Asp	Asp	Tyr	110	115	120	
Asp	Ser	Thr	Lys	Ser	Gly	Leu	Asp	His	Lys	Phe	Gln	Asp	Asp	Pro	125	130	135	
Asp	Gly	Leu	His	Gln	Leu	Asp	Gly	Thr	Pro	Leu	Thr	Ala	Glu	Asp	140	145	150	
Ile	Val	His	Lys	Ile	Ala	Ala	Arg	Ile	Tyr	Glu	Glu	Asn	Asp	Arg	155	160	165	
Ala	Val	Phe	Asp	Lys	Ile	Val	Ser	Lys	Leu	Leu	Asn	Leu	Gly	Leu	170	175	180	

Ile	Thr	Glu	Ser	Gln	Ala	His	Thr	Leu	Glu	Asp	Glu	Val	Ala	Glu	
				185					190					195	
Val	Leu	Gln	Lys	Leu	Ile	Ser	Lys	Glu	Ala	Asn	Asn	Tyr	Glu	Glu	
				200					205					210	
Asp	Pro	Asn	Lys	Pro	Thr	Ser	Trp	Thr	Glu	Asn	Gln	Ala	Gly	Lys	
				215					220					225	
Ile	Pro	Glu	Lys	Val	Thr	Pro	Met	Ala	Ala	Ile	Gln	Asp	Gly	Leu	
				230					235					240	
Ala	Lys	Gly	Glu	Asn	Asp	Glu	Thr	Val	Ser	Asn	Thr	Leu	Thr	Leu	
				245					250					255	
Thr	Asn	Gly	Leu	Glu	Arg	Arg	Thr	Lys	Thr	Tyr	Ser	Glu	Asp	Asn	
				260					265					270	
Phe	Glu	Glu	Leu	Gln	Tyr	Phe	Pro	Asn	Phe	Tyr	Ala	Leu	Leu	Lys	
				275					280					285	
Ser	Ile	Asp	Ser	Glu	Lys	Glu	Ala	Lys	Glu	Lys	Glu	Thr	Leu	Ile	
				290					295					300	
Thr	Ile	Met	Lys	Thr	Leu	Ile	Asp	Phe	Val	Lys	Met	Met	Val	Lys	
				305					310					315	
Tyr	Gly	Thr	Ile	Ser	Pro	Glu	Glu	Gly	Val	Ser	Tyr	Leu	Glu	Asn	
				320					325					330	
Leu	Asp	Glu	Met	Ile	Ala	Leu	Gln	Thr	Lys	Asn	Lys	Leu	Glu	Lys	
				335					340					345	
Asn	Ala	Thr	Asp	Asn	Ile	Ser	Lys	Leu	Phe	Pro	Ala	Pro	Ser	Glu	
				350					355					360	
Lys	Ser	His	Glu	Glu	Thr	Asp	Ser	Thr	Lys	Glu	Glu	Ala	Ala	Lys	
				365					370					375	
Met	Glu	Lys	Glu	Tyr	Gly	Ser	Leu	Lys	Asp	Ser	Thr	Lys	Asp	Asp	
				380					385					390	
Asn	Ser	Asn	Pro	Gly	Gly	Lys	Thr	Asp	Glu	Pro	Lys	Gly	Lys	Thr	
				395					400					405	
Glu	Ala	Tyr	Leu	Glu	Ala	Ile	Arg	Lys	Asn	Ile	Glu	Trp	Leu	Lys	
				410					415					420	
Lys	His	Asp	Lys	Lys	Gly	Asn	Lys	Glu	Asp	Tyr	Asp	Leu	Ser	Lys	
				425					430					435	
Met	Arg	Asp	Phe	Ile	Asn	Lys	Gln	Ala	Asp	Ala	Tyr	Val	Glu	Lys	
				440					445					450	
Gly	Ile	Leu	Asp	Lys	Glu	Glu	Ala	Glu	Ala	Ile	Lys	Arg	Ile	Tyr	
				455					460					465	
Ser	Ser	Leu													

<210> 68
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 68
cgtcacagga acttcagcac cc 22

<210> 69
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 69
gtcttggtt cctccaggtt tgg 23

<210> 70
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
ggacagcgct cccctctacc tggagacttg actcccg 38

<210> 71
<211> 2379
<212> DNA
<213> Homo Sapien

<400> 71
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cgggccacca tggcgctgcc tocaggccca gccgccctcc ggcacacact 100
gctgctcctg ccagcccttc tgagctcagg ttggggggag ttggagccac 150
aaatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200
cacgccttca cctgccgggt ggcagggggg cctggcacc ccagattggc 250
ctggtatctg gatggacagc tgcaggaggc cagcacctca agactgctga 300
gcgtgggagg ggaggccttc tctggaggca ccagcacctt cactgtcact 350
gcccatcggg ccagcatga gctcaactgc tctctgcagg accccagaag 400
tggccgatca gccaacgcct ctgtcatcct taatgtgcaa ttcaagccag 450

agattgcccc agtcggcgcc aagtaccagg aagctcaggg cccaggcctc 500
 ctggttggtcc tgtttgccct ggtgctgccc aaccgcgagg ccaatgtcac 550
 ctggatcgac caggatgggc cagtgactgt caacacctct gacttcctgg 600
 tgctggatgc gcagaactac ccctggctca ccaaccacac ggtgcagctg 650
 cagctccgca gcctggcaca caacctctcg gtggtggcca ccaatgacgt 700
 ggggtgtacc agtgcgtcgc ttccagcccc agggccctcc cggcacccat 750
 ctctgatatc aagtgactcc aacaacctaa aactcaacaa cgtgcgcctg 800
 ccacgggaga acatgtccct ccggtccaac cttcagctca atgacctcac 850
 tccagattcc agagcagtga aaccagcaga ccggcagatg gctcagaaca 900
 acagccggcc agagcttctg gaccgggagc ccggcggcct cctcaccagc 950
 caaggtttca tccgcctccc agtgctgggc tatactctatc gagtgtccag 1000
 cgtgagcagt gatgagatct ggctctgagc cgagggcgag acaggagtat 1050
 tctcttggtcc tctggacacc ctccatttcc tccaaggcat cctctaccta 1100
 gctaggtcac caacgtgaag aagttatgcc actgccactt ttgcttgccc 1150
 tcctggctgg ggtgccctcc atgtcatgca cgtgatgcat ttcactgggc 1200
 tgtaaccgcg aggggcacag gtatctttgg caaggctacc agttggacgt 1250
 aagcccctca tgctgactca ggggtgggccc tgcatgtgat gactgggccc 1300
 ttccagaggg agctctttgg ccaggggtgt tcagatgtca tccagcatcc 1350
 aagtgtggca tggcctgtcg tataccccac ccagtaactc cacagcacct 1400
 tgtacagtag gcatgggggc gtgcctgtgt gggggacagg gagggccctg 1450
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 catcattttc ctacggcggt agcactttaa gcacatcccc taggggaggg 1850
 ggtgagttag gggcccagag ccctctttgt ggcttcccca cgtttgccct 1900

tctgggattc actgtgagtg tcctgagctc tcgggggttga tggtttttct 1950
 ctcagcatgt ctcctccacc acgggacccc agccctgacc aacccatggt 2000
 tgcctcatca gcaggaaggt gcccttcctg gaggatggtc gccacaggca 2050
 cataattcaa cagtgtggaa gctttagggg aacatggaga aagaaggaga 2100
 ccacataccc caaagtgacc taagaacact ttaaaaagca acatgtaaat 2150
 gattggaaat taatatagta cagaatatat ttttccttg ttgagatctt 2200
 cttttgtaat gtttttcatg ttactgccta gggcgggtgt gagcacacag 2250
 caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2379

<210> 72
 <211> 322
 <212> PRT
 <213> Homo Sapien

<400> 72
 Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu
 1 5 10 15
 Leu Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro
 20 25 30
 Gln Ile Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn
 35 40 45
 Glu Arg His Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr
 50 55 60
 Pro Arg Leu Ala Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser
 65 70 75
 Thr Ser Arg Leu Leu Ser Val Gly Gly Glu Ala Phe Ser Gly Gly
 80 85 90
 Thr Ser Thr Phe Thr Val Thr Ala His Arg Ala Gln His Glu Leu
 95 100 105
 Asn Cys Ser Leu Gln Asp Pro Arg Ser Gly Arg Ser Ala Asn Ala
 110 115 120
 Ser Val Ile Leu Asn Val Gln Phe Lys Pro Glu Ile Ala Gln Val
 125 130 135
 Gly Ala Lys Tyr Gln Glu Ala Gln Gly Pro Gly Leu Leu Val Val
 140 145 150
 Leu Phe Ala Leu Val Arg Ala Asn Pro Pro Ala Asn Val Thr Trp
 155 160 165

Ile	Asp	Gln	Asp	Gly	Pro	Val	Thr	Val	Asn	Thr	Ser	Asp	Phe	Leu
				170					175					180
Val	Leu	Asp	Ala	Gln	Asn	Tyr	Pro	Trp	Leu	Thr	Asn	His	Thr	Val
				185					190					195
Gln	Leu	Gln	Leu	Arg	Ser	Leu	Ala	His	Asn	Leu	Ser	Val	Val	Ala
				200					205					210
Thr	Asn	Asp	Val	Gly	Val	Thr	Ser	Ala	Ser	Leu	Pro	Ala	Pro	Gly
				215					220					225
Pro	Ser	Arg	His	Pro	Ser	Leu	Ile	Ser	Ser	Asp	Ser	Asn	Asn	Leu
				230					235					240
Lys	Leu	Asn	Asn	Val	Arg	Leu	Pro	Arg	Glu	Asn	Met	Ser	Leu	Pro
				245					250					255
Ser	Asn	Leu	Gln	Leu	Asn	Asp	Leu	Thr	Pro	Asp	Ser	Arg	Ala	Val
				260					265					270
Lys	Pro	Ala	Asp	Arg	Gln	Met	Ala	Gln	Asn	Asn	Ser	Arg	Pro	Glu
				275					280					285
Leu	Leu	Asp	Pro	Glu	Pro	Gly	Gly	Leu	Leu	Thr	Ser	Gln	Gly	Phe
				290					295					300
Ile	Arg	Leu	Pro	Val	Leu	Gly	Tyr	Ile	Tyr	Arg	Val	Ser	Ser	Val
				305					310					315
Ser	Ser	Asp	Glu	Ile	Trp	Leu								
				320										

<210> 73
 <211> 843
 <212> DNA
 <213> Homo Sapien

<400> 73
 cggggacgga agcgcccccct gggcccagagg ggctggagcc gggccggggc 50
 gatgtggagc gcgggcccgcg gcggggctgc ctggccggtg ctggtggggc 100
 tgctgctggc gctgttagtg ccgggcggtg gtgccgcaa gaccggtgcg 150
 gagctcgtga cctgcgggtc ggtgctgaag ctgctcaata cgcaccaccg 200
 cgtgcggctg cactgcacg acatcaaata cggatccggc agcggccagc 250
 aatcggtgac cggcgtagag gcgtcggacg acgccaatag ctactggcgg 300
 atccgcggcg gctcggaggg cgggtgcccg cgcgggtccc cgggtgcgctg 350
 cgggcaggcg gtgaggctca cgcattgtgt tacgggcaag aacctgcaca 400
 cgcaccactt cccgtcgcgc ctgtccaaca accaggaggt gagtgccttt 450
 ggggaagacg gcgagggcga cgacctggac ctatggacag tgcgctgctc 500

tggacagcac tgggagcgtg aggcctgctgt gcgcttccag catgtgggca 550
 cctctgtgtt cctgtcagtc acgggtgagc agtatggaag ccccatccgt 600
 gggcagcatg aggtccacgg catgccagcgt gccaacacgc acaatacgtg 650
 gaaggccatg gaaggcatct tcatcaagcc tagtgtggag ccctctgcag 700
 gtcacgatga actctgagtg tgtggatgga tgggtggatg gaggggtggca 750
 ggtggggcgt ctgcagggcc actcttggca gagactttgg gttttaggg 800
 gtcctcaagt gcctttgtga ttaaagaatg ttggtctatg aaa 843

<210> 74
 <211> 221
 <212> PRT
 <213> Homo Sapien

<400> 74
 Met Trp Ser Ala Gly Arg Gly Gly Ala Ala Trp Pro Val Leu Leu
 1 5 10 15
 Gly Leu Leu Leu Ala Leu Leu Val Pro Gly Gly Gly Ala Ala Lys
 20 25 30
 Thr Gly Ala Glu Leu Val Thr Cys Gly Ser Val Leu Lys Leu Leu
 35 40 45
 Asn Thr His His Arg Val Arg Leu His Ser His Asp Ile Lys Tyr
 50 55 60
 Gly Ser Gly Ser Gly Gln Gln Ser Val Thr Gly Val Glu Ala Ser
 65 70 75
 Asp Asp Ala Asn Ser Tyr Trp Arg Ile Arg Gly Gly Ser Glu Gly
 80 85 90
 Gly Cys Pro Arg Gly Ser Pro Val Arg Cys Gly Gln Ala Val Arg
 95 100 105
 Leu Thr His Val Leu Thr Gly Lys Asn Leu His Thr His His Phe
 110 115 120
 Pro Ser Pro Leu Ser Asn Asn Gln Glu Val Ser Ala Phe Gly Glu
 125 130 135
 Asp Gly Glu Gly Asp Asp Leu Asp Leu Trp Thr Val Arg Cys Ser
 140 145 150
 Gly Gln His Trp Glu Arg Glu Ala Ala Val Arg Phe Gln His Val
 155 160 165
 Gly Thr Ser Val Phe Leu Ser Val Thr Gly Glu Gln Tyr Gly Ser
 170 175 180
 Pro Ile Arg Gly Gln His Glu Val His Gly Met Pro Ser Ala Asn
 185 190 195

Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile Lys Pro
 200 205 210

Ser Val Glu Pro Ser Ala Gly His Asp Glu Leu
 215 220

<210> 75
 <211> 1049
 <212> DNA
 <213> Homo Sapien

<400> 75
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 ttggaaccac agacgtgagc cactccaccc agcctaaaac ttcattcttct 100
 ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150
 ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200
 tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250
 gctttgggaa ttccaaagta ctcaagtggag agaggtgttt caggagccgt 300
 agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt 350
 gccctgatgg acttgtctga aagcagcaac tggggatgct atggaaacat 400
 ccaaagcctg gacaccctg gagcatcttg tgggattgga agacgtcacg 450
 gcctgaacta ctgtggagtt cgtgcttctg aaaggctggc tgaaatagac 500
 atgccatacc tctgaaata tcaaccatg atgcaaacca ttggccaaaa 550
 gtactgcatg gatcctgccg tgatcgctgg tgtcttgtcc aggaagtctc 600
 ccggtgacaa aattctggtc aacatgggcg ataggactag catggtgcag 650
 gaccctggct ctcaagctcc cacatcctgg attagtgagt ctcaaggttc 700
 ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750
 ttccaacctg gaccctgac cagtacctga gaggtggact ctgtgcctac 800
 agtgggggtg ctggctatgt ccgaagcagc caggacctga gctgtgactt 850
 ctgcaatgat gtccttgac gagccaagta cctcaagaga catggcttct 900
 aacatctcag atgaaacca agaccatgat cacatatgca gcctcaaatg 950
 ttacacagat aaaactagcc aagggcacct gtaactggga atctgagttt 1000
 gacctaaaag tcattaaaat aacatgaatc ccattaaaaa aaaaaaaaaa 1049

<210> 76
 <211> 194
 <212> PRT
 <213> Homo Sapien

<400> 76

Met Ser Ala Leu Trp Leu Leu Leu Gly Leu Leu Ala Leu Met Asp
1 5 10 15
Leu Ser Glu Ser Ser Asn Trp Gly Cys Tyr Gly Asn Ile Gln Ser
20 25 30
Leu Asp Thr Pro Gly Ala Ser Cys Gly Ile Gly Arg Arg His Gly
35 40 45
Leu Asn Tyr Cys Gly Val Arg Ala Ser Glu Arg Leu Ala Glu Ile
50 55 60
Asp Met Pro Tyr Leu Leu Lys Tyr Gln Pro Met Met Gln Thr Ile
65 70 75
Gly Gln Lys Tyr Cys Met Asp Pro Ala Val Ile Ala Gly Val Leu
80 85 90
Ser Arg Lys Ser Pro Gly Asp Lys Ile Leu Val Asn Met Gly Asp
95 100 105
Arg Thr Ser Met Val Gln Asp Pro Gly Ser Gln Ala Pro Thr Ser
110 115 120
Trp Ile Ser Glu Ser Gln Val Ser Gln Thr Thr Glu Val Leu Thr
125 130 135
Thr Arg Ile Lys Glu Ile Gln Arg Arg Phe Pro Thr Trp Thr Pro
140 145 150
Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala Tyr Ser Gly Gly Ala
155 160 165
Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn
170 175 180
Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His Gly Phe
185 190

<210> 77

<211> 899

<212> DNA

<213> Homo Sapien

<400> 77

ttgaaaatct acttatcag ctgctgtggt tgccaccatt ctcaggaccc 50
tcgccatgaa agcccttatg ctgctcacc tgtctgttct gctctgctgg 100
gtctcagctg acattcgctg tcaactcctgc tacaagggtcc ctgtgctggg 150
ctgtgtggac cggcagtcct gccgcctgga gccaggacag caatgcctga 200
caacacatgc ataccttggg aagatgtggg ttttctccaa tctgcgctgt 250
ggcacaccag aagagccctg tcaggaggcc ttcaacacaa ccaaccgcaa 300

gctgggtctg acatataaca ccacctgctg caacaaggac aactgcaaca 350
 gcgcaggacc ccggcccact ccagccctgg gccttgtctt ccttacctcc 400
 ttggctggcc ttggcctctg gctgctgcac tgagactcat tccattggct 450
 gcccctcctc ccacctgcct tggcctgagc ctctctccct gtgtctctgt 500
 atccccctggc tttaacagaat cgtctctccc tagctcccat ttctttaatt 550
 aaacactggt ccgagtgggc tcctcatcca tccttcccac ctcacaccct 600
 tcactctcct ttttctgggt cccttcccac ttccttccag gacctccatt 650
 ggctcctaga agggctcccc actttgcttc ctatactctg ctgtccccta 700
 cttgaggagg gattgggata tgggcctgaa atggggcttc tgtgttgtcc 750
 ccagtgaagg ctcccacaag gacctgatga cctcactgta cagagctgac 800
 tccccaaacc caggetccca tatgtacccc atccccata ctcacctctt 850
 tccattttga gtaataaatg tctgagtctg gaaaaaaaaa aaaaaaaaaa 899

<210> 78

<211> 125

<212> PRT

<213> Homo Sapien

<400> 78

Met	Lys	Ala	Leu	Met	Leu	Leu	Thr	Leu	Ser	Val	Leu	Leu	Cys	Trp
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Val	Ser	Ala	Asp	Ile	Arg	Cys	His	Ser	Cys	Tyr	Lys	Val	Pro	Val
				20					25					30
Leu	Gly	Cys	Val	Asp	Arg	Gln	Ser	Cys	Arg	Leu	Glu	Pro	Gly	Gln
				35					40					45
Gln	Cys	Leu	Thr	Thr	His	Ala	Tyr	Leu	Gly	Lys	Met	Trp	Val	Phe
				50					55					60
Ser	Asn	Leu	Arg	Cys	Gly	Thr	Pro	Glu	Glu	Pro	Cys	Gln	Glu	Ala
				65					70					75
Phe	Asn	Gln	Thr	Asn	Arg	Lys	Leu	Gly	Leu	Thr	Tyr	Asn	Thr	Thr
				80					85					90
Cys	Cys	Asn	Lys	Asp	Asn	Cys	Asn	Ser	Ala	Gly	Pro	Arg	Pro	Thr
				95					100					105
Pro	Ala	Leu	Gly	Leu	Val	Phe	Leu	Thr	Ser	Leu	Ala	Gly	Leu	Gly
				110					115					120
Leu	Trp	Leu	Leu	His										
				125										

<210> 79

<211> 1977
<212> DNA
<213> Homo Sapien

<400> 79

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tagctgcgca gcgtcgcgcg cgctaccgca cccagggttcg gcccgtaggc 150
gtctggcagc ccggcgccat cttcatcgag cgccatggcc gcagcctgcg 200
ggccgggagc ggccgggtac tgcttgctcc tcggcttgca tttgtttctg 250
ctgaccgcgg gccctgccct gggctggaac gaccctgaca gaatgttgct 300
gcgggatgta aaagctctta cctccacta tgaccgctat accacctccc 350
gcaggctgga tcccatccca cagttgaaat gtgttgaggg cacagctggg 400
tgtgattctt ataccccaaa agtcatacag tgtcagaaca aaggctggga 450
tgggtatgat gtacagtggg aatgtaagac ggacttagat attgcataca 500
aatttgaaaa aactgtggtg agctgtgaag gctatgagtc ctctgaagac 550
cagtatgtac taagagggtc ttgtggcttg gagtataatt tagattatac 600
agaacttggc ctgcagaaac tgaaggagtc tggaaagcag cacggctttg 650
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cctcctcccc caggctttaa gtctgagttc acaggaccac agaatactgg 900
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tcagacacga aaaccagaac tgcatacagga tatggtggta ccaggagacg 1200
ataaagtaga aagttggagt caaacactgg atgcagaaat tttggatttt 1250
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aggggatatt caaaagtctt gtggtgttat gtccagtgtg gctttttgtg 1350

ttctattatt tgaggctaaa agttgatgtg tgacaaaata cttatgtgtt 1400
 gtatgtcagt gtaacatgca gatgtatatt gcagtttttg aaagtgatca 1450
 ttactgtgga atgctaaaaa tacattaatt tctaaaacct gtgatgccct 1500
 aagaagcatt aagaatgaag gtgttggtact aatagaaaact aagtacagaa 1550
 aatttcagtt ttaggtgggt gtagctgatg agttattacc tcatagagac 1600
 tataatattc tatttggtat tatattatgt gatgtttgct gttcttcaaa 1650
 catttaaattc aagctttgga ctaattatgc taatttgtga gttctgatca 1700
 cttttgagct ctgaagcttt gaatcattca gtggtggaga tggccttctg 1750
 gtaactgaat attaccttct gtaggaaaag gtggaaaata agcatctaga 1800
 aggttggtgt gaatgactct gtgctggcaa aaatgcttga aacctctata 1850
 tttctttcgt tcataagagg taaagggtcaa atttttcaac aaaagtcttt 1900
 taataacaaa agcatgcagt tctctgtgaa atctcaaata ttgttgtaat 1950
 agtctgtttc aatcttaaaa agaata 1977

<210> 80
 <211> 339
 <212> PRT
 <213> Homo Sapien

<400> 80
 Met Ala Ala Ala Cys Gly Pro Gly Ala Ala Gly Tyr Cys Leu Leu
 1 5 10 15
 Leu Gly Leu His Leu Phe Leu Leu Thr Ala Gly Pro Ala Leu Gly
 20 25 30
 Trp Asn Asp Pro Asp Arg Met Leu Leu Arg Asp Val Lys Ala Leu
 35 40 45
 Thr Leu His Tyr Asp Arg Tyr Thr Thr Ser Arg Arg Leu Asp Pro
 50 55 60
 Ile Pro Gln Leu Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser
 65 70 75
 Tyr Thr Pro Lys Val Ile Gln Cys Gln Asn Lys Gly Trp Asp Gly
 80 85 90
 Tyr Asp Val Gln Trp Glu Cys Lys Thr Asp Leu Asp Ile Ala Tyr
 95 100 105
 Lys Phe Gly Lys Thr Val Val Ser Cys Glu Gly Tyr Glu Ser Ser
 110 115 120
 Glu Asp Gln Tyr Val Leu Arg Gly Ser Cys Gly Leu Glu Tyr Asn
 125 130 135

Leu	Asp	Tyr	Thr	Glu	Leu	Gly	Leu	Gln	Lys	Leu	Lys	Glu	Ser	Gly	140	145	150
Lys	Gln	His	Gly	Phe	Ala	Ser	Phe	Ser	Asp	Tyr	Tyr	Tyr	Lys	Trp	155	160	165
Ser	Ser	Ala	Asp	Ser	Cys	Asn	Met	Ser	Gly	Leu	Ile	Thr	Ile	Val	170	175	180
Val	Leu	Leu	Gly	Ile	Ala	Phe	Val	Val	Tyr	Lys	Leu	Phe	Leu	Ser	185	190	195
Asp	Gly	Gln	Tyr	Ser	Pro	Pro	Pro	Tyr	Ser	Glu	Tyr	Pro	Pro	Phe	200	205	210
Ser	His	Arg	Tyr	Gln	Arg	Phe	Thr	Asn	Ser	Ala	Gly	Pro	Pro	Pro	215	220	225
Pro	Gly	Phe	Lys	Ser	Glu	Phe	Thr	Gly	Pro	Gln	Asn	Thr	Gly	His	230	235	240
Gly	Ala	Thr	Ser	Gly	Phe	Gly	Ser	Ala	Phe	Thr	Gly	Gln	Gln	Gly	245	250	255
Tyr	Glu	Asn	Ser	Gly	Pro	Gly	Phe	Trp	Thr	Gly	Leu	Gly	Thr	Gly	260	265	270
Gly	Ile	Leu	Gly	Tyr	Leu	Phe	Gly	Ser	Asn	Arg	Ala	Ala	Thr	Pro	275	280	285
Phe	Ser	Asp	Ser	Trp	Tyr	Tyr	Pro	Ser	Tyr	Pro	Pro	Ser	Tyr	Pro	290	295	300
Gly	Thr	Trp	Asn	Arg	Ala	Tyr	Ser	Pro	Leu	His	Gly	Gly	Ser	Gly	305	310	315
Ser	Tyr	Ser	Val	Cys	Ser	Asn	Ser	Asp	Thr	Lys	Thr	Arg	Thr	Ala	320	325	330
Ser	Gly	Tyr	Gly	Gly	Thr	Arg	Arg	Arg							335		